

CLAIMS

1. A method of protecting stored data, comprising:
storing a source set of data on a first data storage medium;
designating the source set of data as a primary data source;
creating a physical replica set of data on a second data storage medium for protection against physical disruptions to the source set of data;
creating a logical replica set of data for protection against logical disruptions to the source set of data;
if the first data storage medium becomes damaged, switching to the physical replica set of data as the primary data source; and
if the source set of data becomes corrupted, switching to the logical replica set of data as the primary data source.
2. The method of claim 1, wherein the second data storage medium is physically remote from the first data storage medium.
3. The method of claim 1, wherein the second data storage medium is physically local to the first data storage medium.
4. The method of claim 1, wherein the logical replica set of data is a snapshot copy of the source set of data.

5. The method of claim 4, further comprising creating multiple snapshot copies of the source set of data.
6. The method of claim 5, wherein each snapshot copy represents a different point-in-time version of the source set of data.
7. The method of claim 1, wherein the physical replica set of data is a mirror copy of the source set of data.
8. The method of claim 7, further comprising creating the physical replica set of data by asynchronous mirroring.
9. The method of claim 7, further comprising creating the physical replica set of data by synchronous mirroring.
10. The method of claim 1, wherein the logical replica set of data is created from the physical replica set of data.
11. The method of claim 1, wherein the logical replica set of data is created from the source set of data.
12. The method of claim 1, further comprising overwriting the corrupted source set of data with the logical replica set of data.

13. A processing system, comprising:
- a first data storage medium that stores a source set of data as a primary data source;
 - a second data storage medium that stores a physical replica set of data; and
 - a processor performing a single set of instructions that creates a logical replica set of data for protection against logical disruptions to the source set of data and creates the physical replica set of data for protection against physical disruptions to the source set of data,
- wherein, if the first data storage medium becomes damaged, the processor switches to the physical replica set of data as the primary data source; and
- wherein, if the source set of data becomes corrupted, the processor switches to the logical replica set of data as the primary data source.
14. The processing system of claim 13, wherein the physical replica set of data is stored in a second data storage medium physically remote from the first data storage medium.
15. The processing system of claim 13, wherein the physical replica set of data is stored in a second data storage medium physically local to the first data storage medium.
16. The processing system of claim 13, wherein the logical replica set of data is a snapshot copy of the source set of data.
17. The processing system of claim 16, wherein the storage controller creates multiple snapshot copies of the source set of data.

18. The processing system of claim 17, wherein each snapshot copy represents a different point-in-time version of the source set of data.
19. The processing system of claim 13, wherein the physical replica set of data is a mirror copy of the source set of data.
20. The processing system of claim 19, wherein the processor creates the physical replica set of data by asynchronous mirroring.
21. The processing system of claim 19, wherein the processor creates the physical replica set of data by synchronous mirroring.
22. The processing system of claim 13, wherein the logical set of data is created from the physical replica set of data.
23. The processing system of claim 13, wherein the logical set of data is created from the source set of data.
24. The processing system of claim 13, wherein the processor overwrites the corrupted source set of data with the logical replica set of data.

25. A set of instructions residing in a storage medium, said set of instructions capable of being executed by a storage controller to implement a method for processing data, the method comprising:

- storing a source set of data on a first data storage medium;
- designating the source set of data as a primary data source;
- creating a physical replica set of data on a second data storage medium for protection against physical disruptions to the source set of data;

- creating a logical replica set of data for protection against logical disruptions to the source set of data;

- if the first data storage medium becomes damaged, switching to the physical replica set of data as the primary data source; and

- if the source set of data becomes corrupted, switching to the logical replica set of data as the primary data source.

26. The set of instructions of claim 25, wherein the second data storage medium is physically remote from the first data storage medium.

27. The set of instructions of claim 25, wherein the second data storage medium is physically local to the first data storage medium.

28. The set of instructions of claim 25, wherein the logical replica set of data is a snapshot copy of the source set of data.

29. The set of instructions of claim 28, further comprising creating multiple snapshot copies of the source set of data.

30. The set of instructions of claim 29, wherein each snapshot copy represents a different point-in-time version of the source set of data.

31. The set of instructions of claim 25, wherein the physical replica set of data is a mirror copy of the source set of data.

32. The set of instructions of claim 31, further comprising creating the physical replica set of data by asynchronous mirroring.

33. The set of instructions of claim 31, further comprising creating the physical replica set of data by synchronous mirroring.

34. The set of instructions of claim 25, wherein the logical set of data is created from the physical replica set of data.

35. The set of instructions of claim 25, wherein the logical set of data is created from the source set of data.

36. The set of instructions of claim 25, further comprising overwriting the corrupted source set of data with the logical replica set of data.